Shanghai ONBON Software Technology Co.,LTD

BX-3GPRS

User Manual

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Version history:

Version No	Date	Author	Description
1.0	14-Dec-2011	WANG YOU QIAN	The first version

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BX-3GPRS User Manual

1. Summary

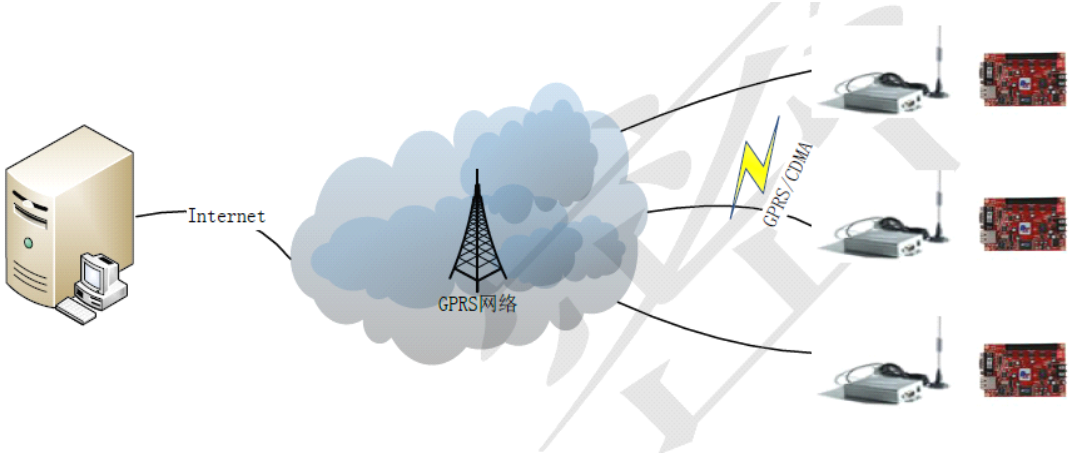
Since January 2011 to today ,after six months serious testing and batch trial,BX-3GPRS finallly released on November 28, 2011.BX-3GPRS combined with LEDshowGG media information cluster release software have formed superior integrated solution,with best performance ,excellent quality and favorable price,they will remote and lead the GPRS wireless technology in LED display industry .

The main comparision between BX-2GPRS and BX-3GPRS is as below:

	BX-2GPRS	BX-3GPRS
Band	900M/1800M Only include partial GSM band,so not validity in all contries.	850M/900M/1800M/1900M Support all of GSM band,suit for global users
Online speed	3 minutes	15 seconds
Mfetion	No support for Mfetion Only SMS configuration, inconvenient,high cost	Support fetion(just validity for CMCC card) Directly fetion configuration, convenient, save cost
Access point(APN)	No Support	Support APN,safe network applicaiton
Power	5V	4.5V – 6.5V Wide voltage,lower requires to system power
Temperature range	-30 – 70℃	-30 – 70℃

2. Application background

With widely use of LED display ,LED display cluster system came into widespread emerge.which increased demands of cluster system.At this satge,most of the cluster systems use wireless control solution based on GPRS/CDMA network,the GPRS/CDMA network have been widely used due to its large coverage and simple networking.Internet GPRS/CDMA server connect to the GPRS network through internet,but LED controller connect to the GPRS network through Internet GPRS/CDMA,so the server can control the LED display screen by GPRS network.



3. Usage

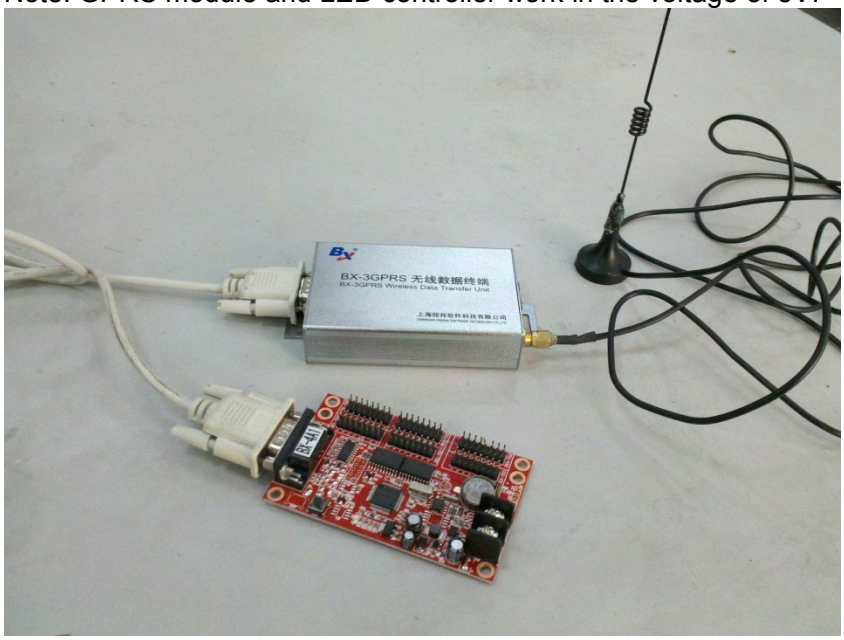
More usage details for BX-3GPRS

3.1 preparations

Item	Name	quantity	other
1	LEDSHOW TW 2011/2012	1	
2	BX-3GPRS SMS configuration tool	1	
3	Computor	1	network computer
4	BX-3GPRS moudle	1	
5	GPRS antenna	1	
6	LED controller	1	Any 3/4/5 controller
7	RS232 directly connect	1	

3.2 Hardware connection

As shown below,GPRS directly connect with the LED controller by RS232,GPRS Antenna connect to the port of GPRS module.
Note: GPRS module and LED controller work in the voltage of 5V.



3.3 Procedure

GPRS configuration composite by server and GPRS module configuration,step as below:
Note:in the following instruction,we default all the PC software is working in the GPRS server

Step 1:

Confirm the server mode.

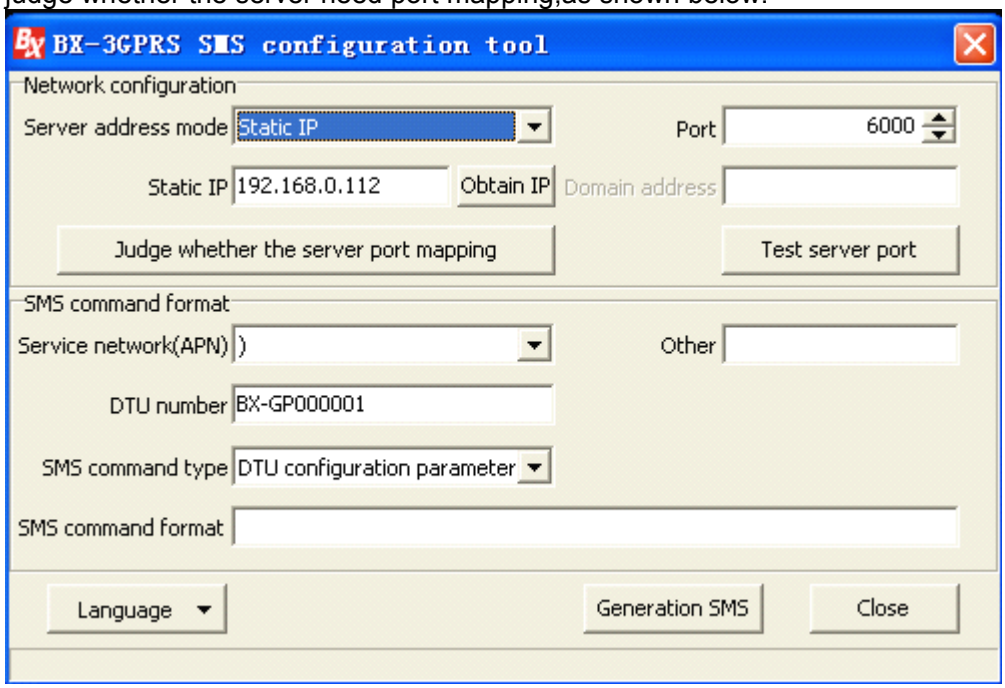
The server mode include static IP and domain name system.In static IP mode,we suggest customer buy a static IP from telecom operators,or the IP will change unstability which need configurate to the GPRS again.

Domain name system is simple ,in this mode ,GPRS module only need configuration for one time ,and no necessary to port mapping,but the customer need to buy domain name from DNS supplier.

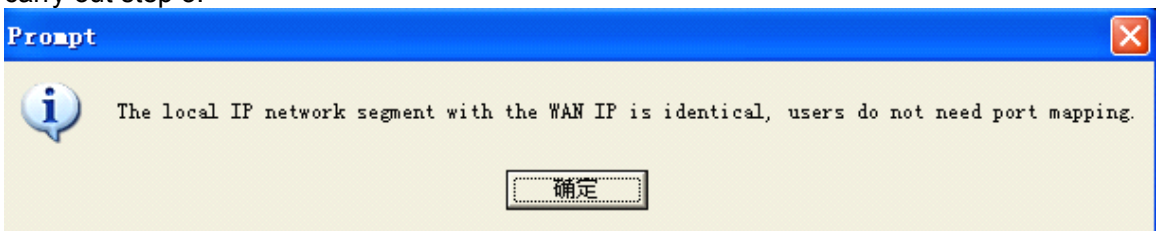
Customer can choose different mode as requires.

If use IP mode ,pls carrry out step 2,or carry out step 4.

Step 2：
Judge whether the server need port mapping,open "BX-3GPRS SMS configuration tool"--judge whether the server need port mapping,as shown below:



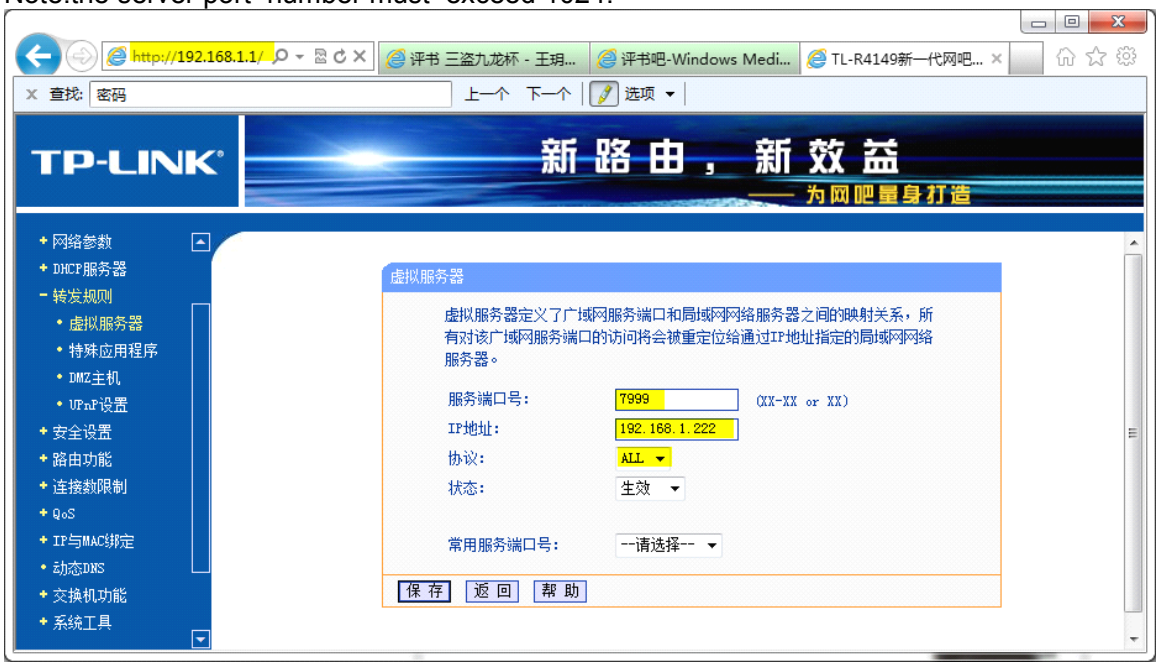
If the local IP is identical with WAN IP,users do not need port mapping in router(step 2).or carry out step 3.



Step 3：
If the local IP is diffrent with WAN IP,users need port mapping in route.

Note:there will be big difference according to different model and brand of the router, but the basic setting is generally the same,we will take TP-LINK(Chinese router) as an example:

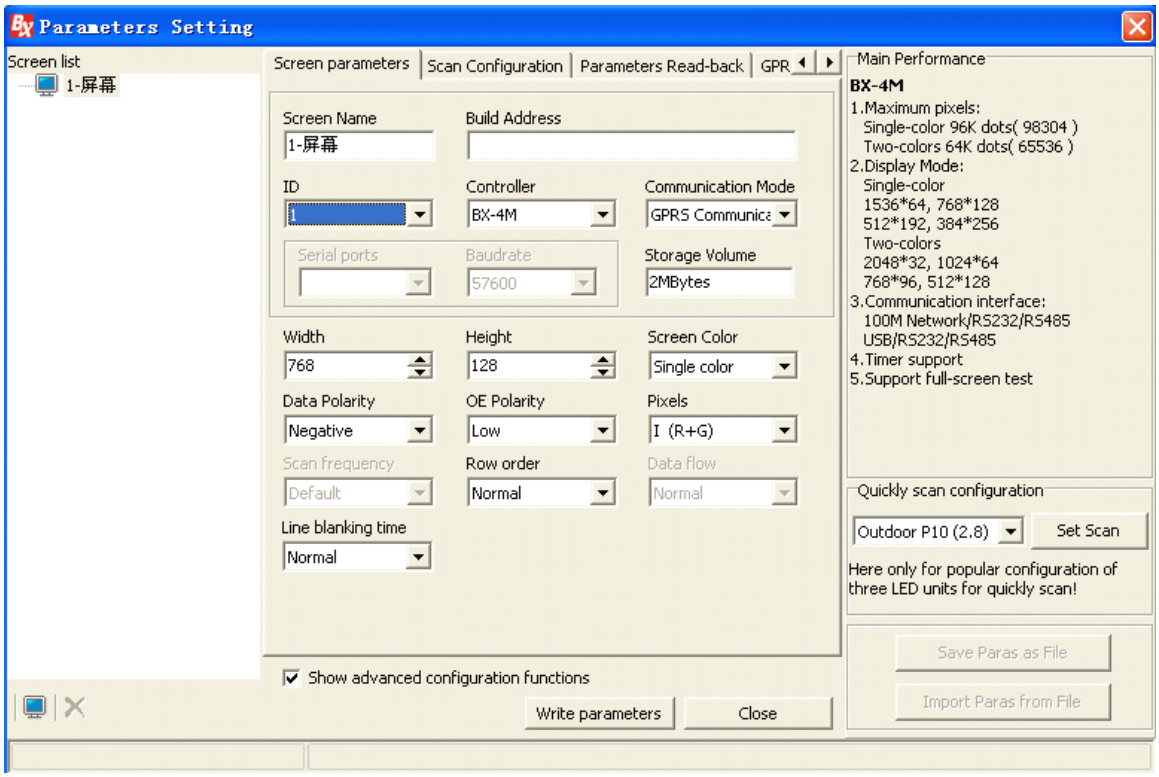
As shown below,input the IP in the router(generally if the local IP is 192.168.1.*,the router IP will be 192.168.1.1)input the user name and password to enter the configuration page.
Click the forwarding rules–> virtual server,fill "server port"and "IP address" in the virtual server configuration page,and select the protocol type as ALL,then save it.
Note:the server port number must exceed 1024.



Step 4:

Add display screen.
Open" LEDSHOW TW" in the GPRS server,select "setting"-> “sett screen parameters",add screen in the "set screen parameters",select "communication mode "as "GPRS communication",other parameters setting is the similar with different screen,as shown

below:

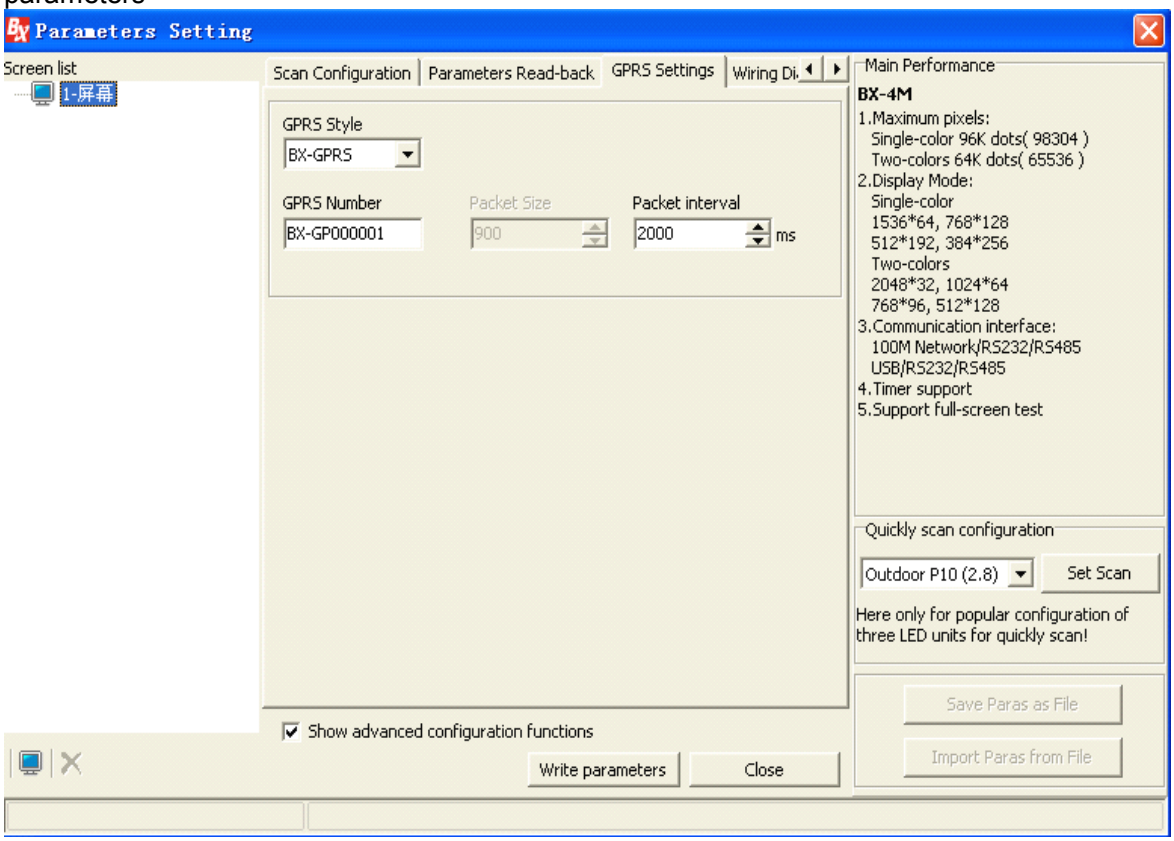


Fill ihe GPRS numer in the "GPRS settings ",it is any number with 11 characters or Numbers.

Note: this number is exclusive for each GPRS module.

As shown below,after setting the parameters,close this dialog box,and don't select" write

parameters"



Step 5：
Start GPRS server
Select setting menu -> GPRS server configuration,fill in the local server IP.(if this computer has multiple network cards installed, or install a virtual machine like VMWare, you need to manually fill in the actual IP address of the corresponding network card). Then fill in the port number.
Note:if carry out step 3, the port number here must be accordance with the number of port mapping.or this port can fill in any number between 1024-6000.
Finally ,start the server,close the dialog box.

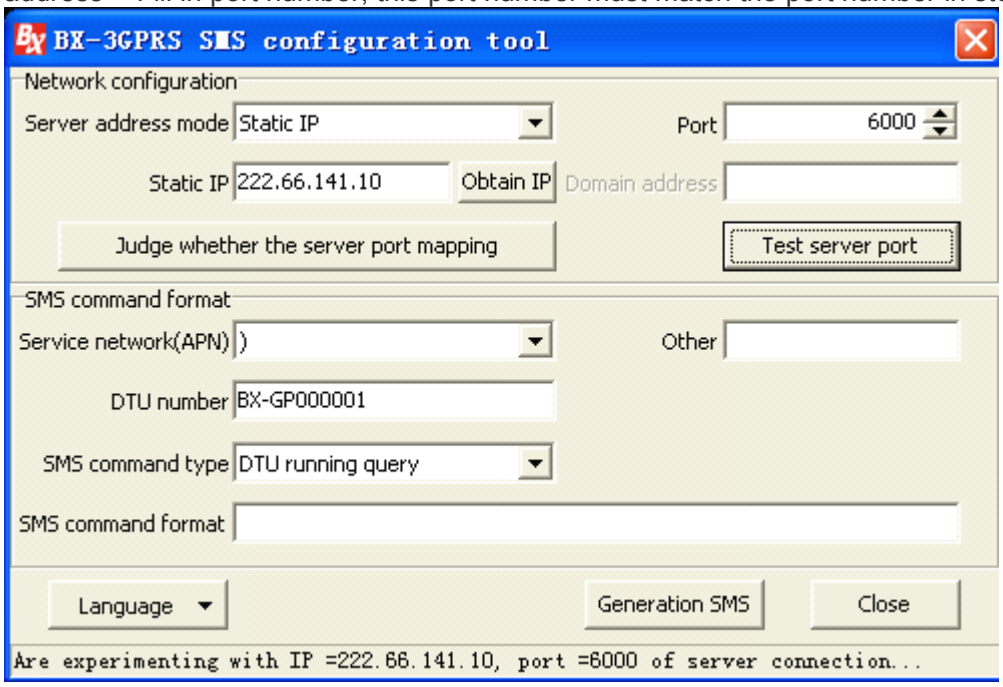
Step 6：

Test GPRS server.

Open the "BX-3GPRS SMS configuration tool", select "server address mode."

If you select "Static IP" mode, need to fill all the WAN IP of server in the "static IP" (Note: If this tool runs on the GPRS server, click on "Get IP" or can be entered manually).

If you select "Domain Name" mode, fill the domain name of server in the "domain name address" Fill in port number, this port number must match the port number in step 5 .



If the connection fails, the message shown below indicating that the server is not configured correctly, need to re-examine the setting from step 1 to step 5.

If the connection is successful, proceed to Step 7.

Note: If setting from step 1 to step 5 is correct, but the connection still fails, turn off the firewall and antivirus software, then try again.

Step 7：

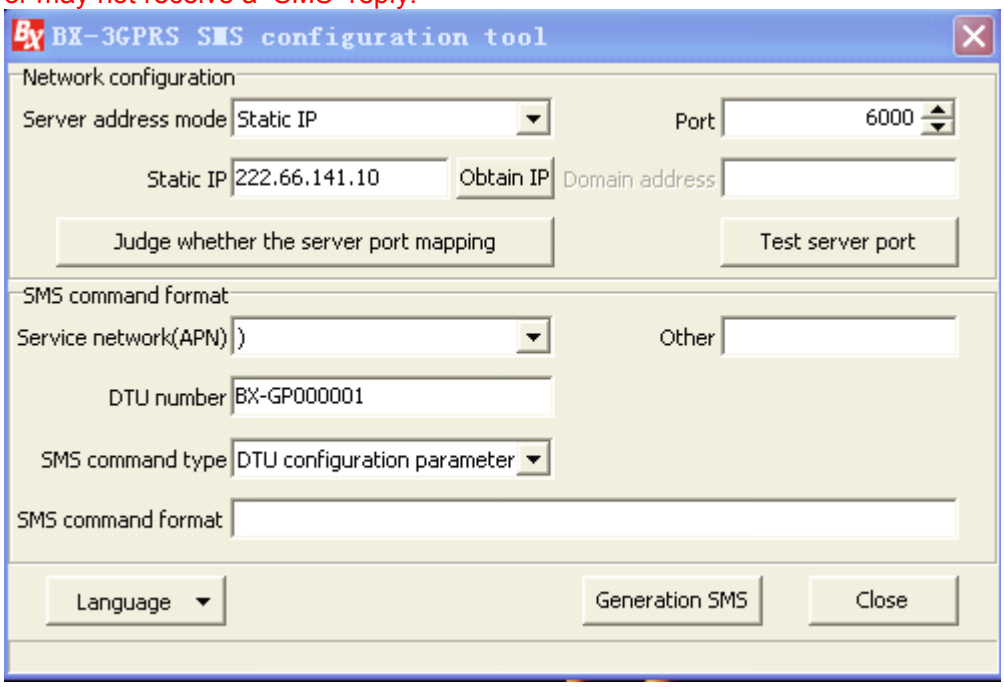
Configurate GPRS module.

If you select "Static IP" mode, need to fill all the WAN IP of server in the "static IP" (Note: If this tool runs on the GPRS server, click on "Get IP" or can be entered manually). If you select "Domain Name" mode, fill the domain name of server in the "domain name address" Fill port number, this port number must match the port number in step 2 .

Select "Service Operations Network (APN)". China Mobile phone cards choose CMNET, China Unicom mobile phone card selection Unicom. If you are using Mobile and Unicom's proprietary network, select "Other" and fill in other APN access point.

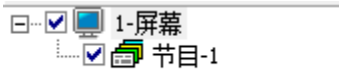
Fill in DTU number, this number is an arbitrary 11-bit characters or numbers.
Note that this number must be exclusive for each GPRS

Select "SMS command type" as "DTU configuration parameters", click "Generate message", send the string of "SMS command format"to the DTU card through Fetion or phone .
If the DTU configuration is successful, the message will be returned as the following format: "IP Ok # APN OK # ID OK #".
Note: If you use the phone to send messages, mobile phone must be in English edit mode, or may not receive a SMS reply.



Step 8：

In LEDSHOW TW, waiting for the DTU online. As shown below, if the screen icon is red, that indicate DTU is not been on-line, if the screen icon turns blue, it indicate DTU is on-line, can write parameters to the controllers .


1-屏幕
节目-1

4. FAQ

Problem	Reason	Solution
No response from the GPRS module after sending message	Error format of the SMS	Configuration message must be entered in the English input method, switch the phone in-put language to English mode ,re-edit, send
GPRS module can be online, but not on the communication	serial line connection fault between GPRS module and LED controller	change the serial line
GPRS module is not onlie	Mobile Arrears	After Payments, need to restart the power
	If the server is static IP mode, and the customer don't buy IP adress from telecom operators ,the IP address does not change from time to time	re-configuration on the GPRS through SMS
	power problem or the phone card is loose	Call this phone number, will prompt "this number can not be connected." At this time, please check if the phone card is loose, or power supply is normal

5. Contact us

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